

1 1. A method of efficiently reducing the amount of graphical data transmitted from a
2 server to a client via a communications network, the method comprising the steps of:
3 separating a path into a plurality of strips, each of the plurality of strips having a
4 strip length and an absolute angle associated therewith;
5 determining a quantized angle associated with the absolute angle for each of the
6 plurality of strips;
7 forming a protocol stream at the server, the protocol stream including a
8 beginning coordinate of the path and the strip length and an indicia of the quantized
9 angle of each of the plurality of strips; and
10 transmitting the protocol stream from the server to the client via the
11 communications network.

1 2. The method of claim 1 further comprising the step of compressing the beginning
2 coordinate of the path and the strip length and the indicia of the quantized angle of each
3 of the plurality of strips prior to transmitting the protocol stream to the client.

1 3. The method of claim 1 wherein the protocol stream includes an indicia associated
2 with at least one of the plurality of strips, the indicia corresponding to an index
3 identifying a location of the at least one of the plurality of strips within a cache memory
4 coupled to the client.

1 4. The method of claim 1 wherein the protocol stream includes an indicia associated
2 with at least one of the plurality of strips, the indicia corresponding to a fuzzy key
3 identifying a location of the at least one of the plurality of strips within a persistent
4 storage memory coupled to the client.

1 5. The method of claim 1 wherein the indicia of the quantized angle corresponds to a
2 quantized angle delta.

1 6. A method of efficiently reducing the amount of graphical data transmitted from a
2 server to a client via a communications network, the method comprising the steps of:
3 separating a path into a plurality of strips, each of the plurality of strips having a
4 beginning and an endpoint coordinate defined within a coordinate system, the
5 coordinate system corresponding to a region of a display surface associated with the
6 client;
7 quantizing the coordinate system into a plurality of quantized angles;
8 determining the endpoint coordinate of a first one of the plurality of strips;
9 normalizing the endpoint coordinate of the first strip to correspond to the origin
10 of the coordinate system;
11 associating the endpoint coordinate of the first strip to a beginning coordinate of
12 a second one of the plurality of strips;
13 selecting one of the plurality of quantized angles of the coordinate system, the
14 selected quantized angle corresponding to an approximate angle of the second strip; and

15 transmitting a difference between the endpoint coordinates of the first and
16 second strips and an indication of the quantized angle to the client.

1 7. A system for efficiently reducing the amount of graphical data transmitted from a
2 server to a client via a communications network, the system comprising:
3 a server agent operating on the server and coupled to the client via the
4 communications network, wherein the server agent
5 a) separates a path into a plurality of strips, each of the plurality of strips having
6 a strip length and an absolute angle associated therewith;
7 b) determines a quantized angle associated with the absolute angle for each of
8 the plurality of strips;
9 c) forms a protocol stream at the server, the protocol stream including a
10 beginning coordinate of the path and the strip length and an indicia of the quantized
11 angle of each of the plurality of strips; and
12 d) transmits the protocol stream from the server to the client via the
13 communications network.

1 8. The system of claim 7 wherein the server agent compresses the beginning
2 coordinate of the path and the strip length and the indicia of the quantized angle of each
3 of the plurality of strips prior to transmitting the protocol stream to the client.

1 9. The method of claim 7 wherein the protocol stream includes an indicia associated
 2 with at least one of the plurality of strips, the indicia corresponding to an index
 3 identifying a location of the at least one of the plurality of strips within a cache memory
 4 coupled to the client.

1 10. The method of claim 7 wherein the protocol stream includes an indicia associated
 2 with at least one of the plurality of strips, the indicia corresponding to a fuzzy key
 3 identifying a location of the at least one of the plurality of strips within a persistent
 4 storage memory coupled to the client.

1 11. The method of claim 7 wherein the indicia of the quantized angle corresponds to a
 2 quantized angle delta.

1 12. A system for efficiently reducing the amount of graphical data transmitted from a
 2 server to a client via a communications network, the system comprising:

3 a server agent operating on the server and coupled to the client via the
 4 communications network, wherein the server agent

5 a) separates a path into a plurality of strips, each of the plurality of strips having
 6 a beginning and an endpoint coordinate defined within a coordinate system, the
 7 coordinate system corresponding to a region of a display surface associated with the
 8 client;

9 b) quantizes the coordinate system into a plurality of quantized angles;

- 10 c) determines the endpoint coordinate of a first one of the plurality of strips;
- 11 d) normalizes the endpoint coordinate of the first strip to correspond to the
- 12 origin of the coordinate system;
- 13 e) associates the endpoint coordinate of the first strip to a beginning coordinate
- 14 of a second one of the plurality of strips;
- 15 f) selects one of the plurality of quantized angles of the coordinate system, the
- 16 selected quantized angle corresponding to an approximate angle of the second strip; and
- 17 g) transmits a difference between the endpoint coordinates of the first and
- 18 second strips and an indication of the quantized angle to the client.